by the DS domain 225. The DS domain 225 executes the QoS control based on a policy such as TELNET is preferentially processed. As a result, QoS that contracts in advance between the enterprise network users and an administrator of DS domain 225, is provided. The DS domain 225 is composed of boundary node 226 and boundary node 227 that are positioned in the edge of the DS domain 225 and interior node 228 that is positioned in the core of the DS domain 225. Interior node 228 has much flow. And high-speed lines are connected to interior node 228. Therefore, interior node 228 may not be able to perform QoS control with high speed. Diffserv is a solution to that problem. The Interior node has only limited function because the load of the interior node is higher than that of the boundary node.

Pages 4 and 5, the paragraph bridging these pages from page 4, line 20 to page 5, line 3, replace the bridging paragraph with:

FIG.1 is a block diagram of a router of a first embodiment of the present invention;

FIG.2 is a schematic view for explaining Diffserv network;

FIG.3 is an example of a packet format used by a network of the present invention;

FIG.4 is an example of an internal packet format used by a router of the present invention;

FIG.5 is IP address format;

FIG.6 is a format of an entry table of a first embodiment of the present invention, showing a condition wherein a Diffserv mode is set up in input line units;

FIG.7 is a flowchart of a first embodiment of the present invention, showing a condition that a Diffserv mode is set up in input line units;

FIG.8 is a block diagram of a flow detecting unit of an embodiment of the present invention, showing a condition that a Diffserv mode is set up in input line units;

FIG.9 is an example of a format of priority table;

FIG.10 is an example of a format of Diffserv mode table;

FIG.11 is a format of an entry table of a second embodiment of the present invention, showing a condition that a Diffserv mode is set up in entry units;

FIG.12 is a block diagram of controller of a second embodiment of the present invention, showing a condition that a Diffserv mode is set up in entry units; and

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FIG.13 is a flowchart of a second embodiment of the present invention, showing a condition that a Diffserv mode is set up in entry units.

Page 5, second full paragraph, lines 7 to 14, replace the paragraph with:

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FIG.1 is a block diagram of a router of a first embodiment of the present invention. Router 100 has header processing unit 110, packet input/output unit 120 for transferring a packet, and processor 130. The header processing unit 110 has ARP processing unit 113 for performing ARP (Address Resolution Protocol) processing, routing processing unit 111 for performing routing processing and flow detecting unit 112 for detecting flow. The packet input/output unit 120 has output FIFO(First In First Out) buffer distribution circuit 121, line interfaces 122-i (i=1,...,N) and lines 123-i (i=1,...,N). Control terminal 140 and network management equipment 150 are connected to the processor 130.

Page 6, first full paragraph, lines 2 to 11, replace the paragraph with:

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We refer to Fig.1 again. When a packet is inputted from input line 123-i, receiver circuit 124-i transforms the packet

into the internal packet format shown in FIG.4, wherein the receiver circuit 124-i provides the input line number i to the input line number 307 of the internal packet format. After that, the receiver circuit 124-i transmits the interior packet to input FIFO buffer 126-i. At this time, the output line number 308 and the priority information 309 of the internal packet have no meanings yet. The input FIFO buffer 126-i stores packets, and transmits them to output FIFO buffer distribution circuit 121 in order of arrival. The output FIFO buffer distribution circuit 121 stores the packets into buffer 128 and transmits header information 11, which is composed of header unit 310 and internal header unit 330, to the header processing unit 110.

Pages 7 and 8, the paragraph bridging these pages from page 7, line 37, replace the paragraph with:

FIG.6 shows a format of an entry table 850. The entry table 850 has H entries 630. Each of the entries has flow condition 631 and QoS control information 632. The QoS control information 632 is composed of priority information 611 for a priority transfer and rewrite DS information 612. The flow condition 631 is composed of a condition to distinguish the

source or the destination of the packet and a condition to distinguish the protocol.

Pages 8 and 9, the paragraph bridging these pages from page 8, line 32 to page 9, line 6, replace the paragraph with:

We explain the processing of the flow detecting step by step referring FIG 7 and FIG.8, which shows a block diagram of a flow detecting unit 112. In the detecting starting processing 700, when the header information 11 of the packet is transmitted to the header processing unit 110, the flow detecting unit 112 stores the input line number 307, SIP 302, DIP 303, SPORT 304, DPORT 305 and DS 306 into memory for line No. of packet 826-2, memory for SIP of packet 822-2, memory for DIP of packet 823-2, memory for SPORT of packet 824-2, memory for DPORT of packet 825-2 in the coincidence decision unit 820 and memory for DS in result decision unit 810 respectively (Step 701). Diffserv mode decision unit (no illustration) in controller 840 decides that it is the Diffserv mode that the corresponding value of Diffserv mode table 841 to the input line number of the memory for line No. of packet (Step 702). In Mode 1 or Mode 3, the Diffserv mode decision unit transmits a start signal to the entry readout unit 830 (no illustration).